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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,987	03/31/2005	Manfred Gilbert	LWEP:132US	2273
24041	7590	05/16/2007		
SIMPSON & SIMPSON, PLLC 5555 MAIN STREET WILLIAMSVILLE, NY 14221-5406			EXAMINER PRITCHETT, JOSHUA L	
			ART UNIT 2872	PAPER NUMBER
			MAIL DATE 05/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/529,987

Applicant(s)

GILBERT, MANFRED

Examiner

Joshua L. Pritchett

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

This action is in response to Amendment filed March 8, 2007. All applicant's arguments have been considered.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi (US 6,801,650) in view of Stock (DE 19 959 228).

Regarding claims 1 and 8, Kikuchi teaches a microscope with a stand (Fig. 1) and a microscope stage (18) disposed on the stand capable of being moved in all three space directions (col. 6 lines 50-55; Fig. 4) by means of motors comprising at least one temperature sensor (41; col. 31 lines 15-26) in or on the stand; a regulating control unit (31), the regulating and control unit including data storage device (31a) and a microprocessor (Fig. 4); and the regulating control unit adjust the first, second and third motors so that the microscope stage assumes a stable position in space independently of the temperature (Fig. 4; abstract). Kikuchi lacks reference to

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a correction table. Stock teaches a correction table stored in the data storage device and containing drift values for the three space directions of the stand as a function of temperature and first, second and third motors on the microscope stage (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Kikuchi invention include the correction table of Stock for the purpose of rapidly responding to the movement of the stage in response to ambient temperature fluctuations.

Regarding claims 2, 3, 9 and 12, Kikuchi in combination with Stock teaches the invention as claimed but lacks reference to the manner of establishing the correction table. It is extremely well known in the art to establish the basis for control signals either manually or automatically. Official Notice is taken. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Kikuchi in combination with Stock invention have a manually or automatically established correction table for the purpose of having a reliable means of comparison to generate a control signal to control the position of the stage.

Regarding claims 4 and 14, Kikuchi teaches the regulating and control unit is integrated into the stage of the microscope (Fig. 4).

Regarding claims 5 and 15, Kikuchi teaches the regulating and control unit in the stand is disposed in an external electronics box (Figs. 2 and 4).

Regarding claims 6 and 17, Kikuchi teaches an input unit (8b) which is connected with the regulating and control unit (Fig. 4).

Regarding claims 7, 11 and 18, Kikuchi teaches the input unit is a mouse, trackball key or a touch screen (col. 8 line 53).

Regarding claims 10 and 13, Kikuchi teaches an ocular having a first cross hairs; placing a slide having a second cross hairs on the stage; focusing the second cross hairs by setting the third motor and setting the first and/or second motor to superimpose the first cross hairs and the second cross hairs and actuating the input device to transfer data required for displacement to superimpose the first cross hairs and the second cross hairs of the ocular and the second slide (Figs. 12 and 14). Kikuchi teaches a target which is a circular shape as the second cross hairs. The examiner interprets the circular target to be a functional equivalent of a cross hair pattern.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi (US 6,801,650) in view of Stock (DE 19 959 228) as applied to claim 8 above, and further in view of Ota (US 2002/0146628).

Kikuchi in combination with Stock teaches the invention as claimed but lacks reference to statistical analysis. Ota teaches the use of statistical analysis to establish information about a substrate of a microscope (para. 0028). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Kikuchi in combination with Stock invention use statistical analysis to establish the correction table for the purpose of using the control system of Kikuchi in combination with Stock in a variety of commonly designed microscopes without having to establish a correction table for each individual microscope.

***Response to Arguments***

Applicant's arguments filed March 8, 2007 have been fully considered but they are not persuasive.

Applicant argues Kikuchi is directed to the use of a single distance sensor and does not use a plurality of temperature sensor or even one temperature to move a microscope stage. The claim language states, "at least one temperature sensor" so a plurality of sensor is not required. Kikuchi states a sensor output value changes when the outside temperature changes (col. 31 lines 15-21). Thus, the microscope stage is moved based on temperature.

Applicant argues Kikuchi discloses only movement in the x and y directions and not in the z direction. Kikuchi teaches the ability to move the stage in all three directions as well as a rotational direction (col. 6 lines 50-55; X, Y, Z and theta stages). Stock teaches how to move in each direction in response to temperature changes as stated in the rejection above.

Applicant argues the distance sensor in Kikuchi is located on the microscope objective not on or in the stage. The claim states the sensor is located in or on the "stand" not the "stage." The sensor is located on the stand because the sensor is attached to the stand as shown in Fig. 5 of Kikuchi.

Applicant argues Stock would not suggest any X or Y movement. Kikuchi teaches to set the X and Y coordinates to an observation position. Stock teaches drift values would change the observation position. Therefore there is a suggestion to adjust the X and Y coordinates set in Kikuchi to compensate for the drift value as taught by Stock.

Applicant argues Ota is directed to solving the problem of thermal expansion within a semiconductor wafer. Ota is only used to teach statistical analysis is a known method of

compensating for thermal effects in microscopic systems. The structural limitations are taught by Kikuchi and Stock.

Applicant's arguments, see Amendment, filed March 8, 2007, with respect to objection to the abstract have been fully considered and are persuasive. The objection of the abstract has been withdrawn. Applicant amended the abstract to conform with MPEP requirements.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joshua L Pritchett  
Examiner  
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